

**PATENT**Practitioner's Docket No. U 012218-7**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**In re application of **Gi Yong YOO**

Serial No.: 09/295,850

Group No.: 1731

Filed: April 21, 1999

Examiner: M. Halpern

For: **TOBACCO SUBSTITUTE COMPOSITION**Assistant commissioner for Patents  
Washington, D.C. 20231**AMENDMENT TRANSMITTAL**

1. Transmitted herewith is an amendment for this application.

**STATUS**

2. Applicant is

- ☒ a small entity. A statement:  
☐ is attached.  
☒ was already filed.  
☐ other than a small entity.

**FAX RECEIVED**  
NOV 01 2001  
**GROUP 1700**  
**OFFICIAL****CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. 1.8(a))**

I hereby certify that, on the date shown below, this correspondence is being:

**MAILING**

- ☒ deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

**FACSIMILE**

- ☐ transmitted by facsimile to the Patent and Trademark Office.

Signature

JANET I. CORD

(type or print name of person certifying)

Date: August 29, 2001

(Amendment Transmittal)—page 1 of 4) 9-19

**EXTENSION OF TERM**

**NOTE:** "Extension of Time in Patent Cases (Supplement Amendments) — If a timely and complete response has been filed after a Non-Final Office Action, an extension of time is not required to permit filing and/or entry of an additional amendment after expiration of the shortened statutory period.

If a timely response has been filed after a Final Office Action, an extension of time is required to permit filing and/or entry of a Notice of Appeal or filing and/or entry of an additional amendment after expiration of the shortened statutory period unless the timely-filed response placed the application in condition for allowance. Of course, if a Notice of Appeal has been filed within the shortened statutory period, the period has ceased to run." Notice of December 10, 1985 (1061 O.G. 34-35).

**NOTE:** See 37 C.F.R. 1.645 for extensions of time in interference proceedings, and 37 C.F.R. 1.550(c) for extensions of time in reexamination proceedings.

3. The proceedings herein are for a patent application and the provisions of 37 C.F.R. 1.136 apply.

(complete (a) or (b), as applicable)

(a) ☐ Applicant petitions for an extension of time under 37 C.F.R. 1.136 (fees: 37 C.F.R. 1.17(a)(1)-(4)) for the total number of months checked below:

Extension (months)	Fee for other than small entity	Fee for small entity
<input type="checkbox"/> one month	\$ 110.00	\$ 55.00
<input type="checkbox"/> two months	\$ 390.00	\$ 195.00
<input type="checkbox"/> three months	\$ 890.00	\$ 445.00
<input type="checkbox"/> four months	\$ 1,390.00	\$ 695.00

Fee: \$ \_\_\_\_\_

If an additional extension of time is required, please consider this a petition therefor.

(check and complete the next item, if applicable)

☐ An extension for \_\_\_\_\_ months has already been secured. The fee paid therefor of \$ \_\_\_\_\_ is deducted from the total fee due for the total months of extension now requested.

Extension fee due with this request \$ \_\_\_\_\_

**OR**

(b) ☒ Applicant believes that no extension of term is required. However, this is a conditional petition being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition for extension of time.

**FEE FOR CLAIMS**

4. The fee for claims (37 C.F.R. 1.16(b)-(d)) has been calculated as shown below:

						OTHER THAN A			
		(Col. 1)	(Col. 2)	(Col. 3)	SMALL ENTITY		SMALL ENTITY		
		Claims Remaining After Amendment	Highest No. Previously Paid For	Present Extra	Rate	Addit. Fee	OR	Rate	Addit. Fee
Total	*	Minus	**	=	x \$ 9 =	\$		x \$18 =	\$
Indep.	*	Minus	***	=	x \$40 =	\$		x \$80 =	\$
[ ] First Presentation of Multiple Dependent Claim					+ \$135 =	\$		+ \$270 =	\$
Total						Addit. Fee	\$	OR	Total
						Addit. Fee	\$		Addit. Fee

- \* If the entry in Col. 1 is less than the entry in Col. 2, write "0" in Col. 3,  
 \*\* If the "Highest No. Previously Paid For" IN THIS SPACE is less than 20, enter "20".  
 \*\*\* If the "Highest No. Previously Paid For" IN THIS SPACE is less than 3, enter "3".  
 The "Highest No. Previously Paid For" (Total or Indep.) is the highest number found in the appropriate box in Col. 1 of a prior amendment or the number of claims originally filed.

**WARNING:** "After final rejection or action (§ 1.113) amendments may be made canceling claims or complying with any requirement of form which has been made." 37 C.F.R. 1.116(a) (emphasis added).

(complete (c) or (d), as applicable)

- (c) ☐ No additional fee for claims is required.

OR

- (d) ☐ Total additional fee for claims required \$ \_\_\_\_\_.

**FEE PAYMENT**

5. ☐ Attached is a check in the sum of \$ \_\_\_\_\_.  
☐ Charge Account No. 12-0425 the sum of \$ \_\_\_\_\_.  
 A duplicate of this transmittal is attached.

**FEE DEFICIENCY**

**NOTE:** *If there is a fee deficiency and there is no authorization to charge an account, additional fees are necessary to cover the additional time consumed in making up the original deficiency. If the maximum, six-month period has expired before the deficiency is noted and corrected, the application is held abandoned. In those instances where authorization to charge is included, processing delays are encountered in returning the papers to the PTO Finance Branch in order to apply these charges prior to action on the cases. Authorization to charge the deposit account for any fee deficiency should be checked. See the Notice of April 7, 1986, (1065 O.G. 31-33).*

6. ☒ If any additional extension and/or fee is required, charge Account No. 12-0425.

**AND/OR**

- ☒ If any additional fee for claims is required, charge Account No. 12-0425

**SIGNATURE OF PRACTITIONER**

Janet I. Cord

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## PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Gi Yong YOO

Serial No.: 09/295,850

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Filed: April 21, 1999

Examiner.: M. Halpern

For: TOBACCO SUBSTITUTE COMPOSITION

Attorney Docket No.: U 012218-7

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

SUPPLEMENTAL RESPONSE

This is a supplemental response to the Notice of Appeal filed on July 9, 2001.

The present application discloses a composition comprising 80-90 weight percent of *Encommia ulmoides*, 1-10 weight percent of *Glycyrrhiza glabra*, and 1-10 weight percent of *Perilla frutescens*. The present composition is a tobacco substitute and is an effective aid in smoking cessation. *Glycyrrhiza glabra* and *Perilla frutescens* are combined with *Eucommia ulmoides* for their "medicinal" purposes. Often a person who is in the process of quitting smoking will experience side effects such as coughing and will expectorate sputum. *Glycyrrhiza glabra* serves to discharge sputum and smooth the airways of a patient who is smoking the composition to overcome the side effects which may occur due to cessation of smoking, see the paragraph bridging pages 2 and 3 of the new specification.

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**CERTIFICATE OF MAILING (37 CFR 1.8a)**

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231

Janet I. Cord

Type or print name of person mailing paper)

Date: August 29, 2001

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(Signature of person mailing paper)

*Perilla frutescens* is added to the composition to overcome the coughing effects associated with cessation of smoking, see page 3, lines 3-6 of the new specification.

According to the Examiner, the present invention is obvious in light of Shin (KR 9007855B) in view of Webster's 3<sup>rd</sup> New International Dictionary, Finberg (U.S. Patent No. 2,930,719) and Horimoto (U.S. Patent No. 4,620,554).

The Shin reference describes a tobacco substitute composition comprising *Eucommia ulmoides*, licorice, honey and peppermint mixture. The Shin reference is silent about using *Perilla frutescens*. The Finberg reference teaches using licorice as a flavorant at 4%. The Examiner argues that it would have been obvious to add the licorice to the tobacco substitute composition of Shin because it would accomplish the desired results of flavoring the composition. Horimoto teaches using Beefsteak, Japanese mint, peppermint and vanilla interchangeably as flavorants in a smoking composition. The Examiner alleges that it would have been obvious to combine Beefsteak and Japanese mint with the composition of Shin because the aseptic action and tasteful properties of Beefsteak and the refreshing feel and taste properties of Japanese mint, would provide further flavoring in the Shin tobacco substitute.

None of the cited prior art references describe *Glycyrrhiza glabra* and *Perilla frutescens* to overcome the side effects associated with the cessation of smoking. Rather the prior art references, as well as the arguments set forth by the Examiner, describe *Glycyrrhiza glabra* and *Perilla frutescens* as flavorants.

Enclosed are papers disclosing the medicinal properties of *Glycyrrhiza glabra* and *Perilla frutescens*. These papers support the position that these components act as something more than flavorants.

In the *Journal of Alternative and Complementary Medicine* (2000 Dec) 6 (6) 557-9 (see Attachment A), the effectiveness of Ninjin Yoei To, an herbal medicine comprising glycyrrhize, was studied for treating patients suffering from lung cancer. The results of the study were that the tumors in the lungs were reduced and certain side effects, such as coughing, disappeared.

*Perilla frutescens* has been studied for decreasing the amount of nicotine and carbon monoxide contained in blood due to smoking and for reducing the effects of asthma. In JP 62-135428 a method of decreasing the amount of nicotine and carbon monoxide in the body of a smoker was described using an effective amount of a composition comprising the active ingredients of ascorbic acid or its salts, powdered leaves of Comfrey, vegetable albumin and *Perilla* (see Attachment B). It was discovered that this composition expedites or accelerates the natural body's process of detoxification.

In the *International Archives of Allergy and Immunology* Journal (See Attachment C), dietary *Perilla* seed oil was studied and it was determined that dietary supplementation of *Perilla* seed oil administered to selected patients with asthma suppresses the generation of leukotriene LTC<sub>4</sub>. It was also determined that clinical features such as an increase in respiratory function and a decrease in serum levels of total cholesterol, triglyceride, high-density lipoprotein cholesterol were also associated with *Perilla* seed oil. In *Internal Medicine*, (See Attachment D) the effects of *Perilla* seed oil on bronchial asthma were compared with the effects of corn oil. The results showed that *Perilla* seed oil supplementation is useful for the treatment of asthma in terms of suppression of LTB<sub>4</sub> and LTC<sub>4</sub> generation by leucocytes, and improves respiratory function.

In *Chem. Pharm. Bull.* 43(5) 887-889 (1995), two novel antioxidants were produced from roasted *Perilla* seed, (see Attachment E). Antioxidants have been proven to prevent certain cancers, such as lung cancer, which is a side effect of smoking cigarettes.

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination, *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed.Cir. 1990).

None of the prior art references cited by the Examiner suggest combining *Glycyrrhiza glabra* and *Perilla frutescens* with *Eucommia ulmoides* to reduce the side effects associated with the cessation of smoking. As noted above, it has been proven that *Glycyrrhiza glabra* reduces the side effect of coughing in patients suffering from lung cancer and *Perilla frutescens* improves respiratory functions in patients suffering from asthma.

Flavorants that may be used in the present invention include sodium chloride, glycerol, sweetener, spices, sugar, honey, and artificial sweetener, see page 3, lines 7-10. From the description in the specification along with the journal articles cited by the Applicants, it is clear that *Glycyrrhiza glabra* and *Perilla frutescens* are used for other purposes besides flavoring. Therefore, without the prior art suggesting using *Eucommia ulmoides*, *Glycyrrhiza glabra* and *Perilla frutescens* to overcome or moderate the physical effects associated with cessation of smoking, there is no suggestion or motivation to modify the reference or to combine the reference teachings.

Applicants respectfully submit that the present invention is nonobvious over the cited prior art because the references do not suggesting the use of *Eucommia ulmoides*, *Glycyrrhiza glabra* and *Perilla frutescens* in an amount sufficient to overcome the coughing and respiratory effects associated with cessation of smoking.

Respectfully submitted,

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